

CCR# 96-0876B, 10 September 1996

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RBR_id	req_key	req_category	segment	req_type	s_verif_method	s_verif_stat	a_verif_method	a_verif_stat	text	interpretation text
DADS0498#A	4104	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each designated DADS shall receive standing and retrospective product orders from the IMS.	A: Data Request and Subscription processing (based on receipt of data or core metadata, either distribute data or send notification of data availability) A: Standing Order = Subscription Request; Retrospective Order = Data Request
DADS0500#A	4105	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall receive changes to standing orders from the IMS.	
DADS0520#A	4106	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall accept requests for data needed for Standard Product production.	A: Basic data requests
DADS0525#A	4107	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall accept updates/cancellations of data order requests.	A: Cancellations only from operations staff
DADS0540#A	4108	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall notify the PGS of the receipt of non-EOS data sets required for Standard Product production.	A: TRMM <u>Notification provided by the subscription capability.</u>
DADS0550#A	4109	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall notify the PGS of the receipt of EOS data sets required for Standard Product production (e.g., data received from non-collocated DADS).	A: Dependencies b/w for CERES, LIS.
DADS0570#A	4110	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall verify product orders from the IMS.	
DADS0600#A	4111	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall accept requests from the IMS to distribute data archived in the DADS to requesting	

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DADS0610#A	4112	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall support reprocessing.	A: Receive and store reprocessed data granules as if they were new data granules.
DADS0660#A	4113	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall maintain a database of orders which shall include at a minimum: priorities, distribution directions, and all other details necessary to process orders including standing and multi-DADS orders.	
DADS0680#A	4114	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall have the capability to support all required requests and shall grow as demand expands.	Capacity-issue A: Storage and request processing capacity in accordance with ECS Technical Baseline.
DADS0690#A	4115	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall support the prioritized retrieval and delivery of data based on the priority information specified in the data retrieval request.	
DADS0700#A	4116	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall be capable of complying with data transfer cancellation or delay notifications.	A: Service Request cancellation
DADS0760#A	5577	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	The DADS shall distribute data in approved standard formats including HDF and the Landsat 7 standard format (Landsat data only.)	
DADS0770#A	4118	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	The DADS shall reformat data sets in one of the approved standard formats including HDF.	
DADS0780#A	4119	mission fulfillment	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.	

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DADS0800#A	4120	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.	
DADS0880#A	4121	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	For data which it has distributed, each DADS, via the LSM, shall generate required accounting information.	
DADS0901#A	4122	mission essential	SDPS CSMS	functional	test	un-verified	test	<u>un-verified</u>	The DADS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management h. Distribution and Ingest Management	A: Full fault management reporting to SMC/LSM
DADS0927#A	4123	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall generate and send to SMC reports of the status of the distribution of data.	
DADS0940#A	4124	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall send distribution status to the IMS in response to distribution status requests from the IMS.	
DADS0960#A	4125	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall automatically send data distribution status to the IMS upon completion of the distribution process.	

DADS1000#A	4126	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	The DADS shall receive distribution status requests from the collocated PGS.	
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DADS1010#A	4128	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall send to the requesting PGS or IMS, staging status of requests for retrieval of data products.	
DADS1020#A	4129	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall generate data retrieval status to acknowledge the receipt of a product order. The data retrieval status shall indicate the acceptance or rejection of the request. In the event of rejection, the status shall contain an indication of the reason for rejection (e.g., distribution parameters missing, data not present or unreadable).	
DADS1030#A	4130	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall generate data distribution status to monitor the progress of the distribution process.	
DADS1070#A	4133	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	The DADS shall send data check and storage status to the provider of ingest data.	A: Full capability
DADS1080#A	4135	mission essential	SDPS	functional	test	un-verified	test <u>demo</u>	<u>un-verified</u>	Each DADS shall maintain a data receipt log.	
DADS1085#A	4138	mission essential	SDPS	functional	test	un-verified	test <u>demo</u>	<u>un-verified</u>	Each DADS shall maintain a data access log.	
DADS1100#A	4140	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall maintain a log of all updates to the local inventory. The log shall be used to generate status reports and, in conjunction with the inventory backup, recreate the local inventory in the event of catastrophic	

									failure.	
DADS1110#A	4443	mission essential	SDPS	functional	test	un-verified	test demo	<u>un-verified</u>	Each DADS shall maintain a data distribution log.	

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DADS1114#A	4444	mission essential	SDPS	functional	test	un-verified	test demo	<u>un-verified</u>	Each DADS shall maintain a log of staging activity.	
DADS1160#A	4445	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall provide the IMS with metadata reflecting changes as a result of: a. Purges b. Transfers to other site(s) c. Unexpected loss d. Updates	A: Unexpected loss
DADS1180#A	4449	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall provide the collocated PGS with data storage and retrieval capabilities.	
DADS1210#A	4452	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall prepare, for output to the collocated PGS, data availability notices.	
DADS1230#A	4454	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall be capable of providing temporary storage for a collocated PGS.	
DADS1235#A	6135	<u>mission essential</u>	SDPS	performance functional	test	<u>un-verified</u>	test	<u>un-verified</u>	Each DADS shall temporarily store expedited data received for 48 hours or until production data are available (whichever comes first).	At Release A. expedited data will be stored. The mechanism to automatically delete it after 48 hours or when production on data are available will not be available until Release B.
DADS1300#A	4459	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall display all faults to the system operators.	A: Full compatibility
DADS1310#A	4462	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall track and report to the SMC problems such as missing or corrupted files requiring restoration or regeneration of data.	A B: Track and Report problems

DADS1320#A	4464	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall provide to the SMC fault isolation information at the DADS system and subsystem levels.	
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DADS1330#A	4468	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall provide information to support fault isolation between the DADS and other ECS-unique elements and external interfaces to the LSM.	
DADS1340#A	4471	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall use tools to analyze system performance.	
DADS1380#A	4477	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall monitor data transfer between external (non-ECS) elements and the DADS.	A: TRMM, AM-1, NOAA (ancillary), FDF, Landsat-7
DADS1390#A	4480	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall monitor data transfer between elements of the ECS and the DADS.	
DADS1400#A	4482	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>	Each DADS shall notify the originating source of the need to retransmit data in the event of transmission difficulties.	A: Full capability (note: all retransmissions for TRMM are instigated by ECS)
DADS1470#A	4486	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall manage element resource utilization.	A: Report status and make status available for display
DADS1472#A	6423	mission critical	SDPS	functional	demo	un-verified	demo	un-verified	Each DADS shall contain the appropriate capacity to respond to contingencies, scheduling problems, and peak loads.	A: TRMM only; <u>capacity in accordance with ECS Technical Baseline.</u>
DADS1510#A	4490	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall ensure that IMS acknowledges receipt of metadata on all products stored in the DADS.	
DADS1520#A	4492	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall provide an FSMS. Storage shall be based on a hierarchy of devices and media, with location-	

									transparent access to the files.	
DADS1530#A	4494	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall maintain a file directory of all files under its control.	

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DADS1540#A	4496	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	In case of corruption or catastrophic failure, capabilities for recovering the file directory shall be provided.	
DADS1550#A	4497	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Operations/systems personnel shall be able to access, list, or modify the contents of the file directory in a special privileged mode.	A: Create append to Display File Directory
DADS1610#A	4500	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	The FSMS shall provide for continued performance, albeit in a degraded mode, when a device (e.g., disk or cartridge drive, operator's console) fails.	
DADS1620#A	4502	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	At each DADS tools shall be available for operations/systems/ maintenance personnel to monitor performance, carry out maintenance, and alter operating parameters.	A: Allocation and display storage device status and display media status
DADS1630#A	4506	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	At each DADS tools shall be provided for recovery of data from failed media and devices.	

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DADS1640#A	6424	mission essential	SDPS	functional	demo	un- verified	test <u>analysis</u>	un- verified	The DADS shall support the number of files derivable from Appendix C, with the ability to expand to match growth.	A: TRMM-only <u>Number of files for Release A archives are derived from the capability to accommodate the Release A supported missions until the operational turnover of Release B (Through 3 quarter of 98). The number of files at GSFC is sized to support the TSDIS data (along with required ancillary) and V0 migration data while LaRC archive is sized to support the CERES (TRMM) data (along with required ancillary) and V0 migration data. Total accumulated number of files for Release A, derived from the August, 1995 Technical Baseline (Release A procurement baseline) and TSDIS ICD, is 815K @ GSFC and 70K @ LaRC. No Release A archive capacity is provided at EDC. The number of V0 migration files was derived by assuming an average size of 50 MB per file.</u>
DADS1700#A	4568	mission fulfillme nt	SDPS	functional	demo	un- verified	demo <u>analysis</u>	<u>un- verified</u>	Where appropriate, the DADS shall comply with the evolving guidelines and standards emerging from the IEEE-CS MSS Reference Model.	
DADS1710#A	4570	mission fulfillme	SDPS	functional	demo	un- verified	demo <u>analysis</u>	<u>un- verified</u>	The DADS shall comply with evolving guidelines and standards	

		nt							in such areas as file storage, storage management, and backup where appropriate.	
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DADS1720#A	4633	mission essential	SDPS	functional	demo	un-verified	demo analysis	<u>un-verified</u>	The FSMS at each DADS shall be based on published and open architectures which fully describe the physical organization and structures of files.	
DADS1730#A	4634	mission essential	SDPS	functional	demo	un-verified	demo analysis	<u>un-verified</u>	The DADS shall be developed using file storage management systems that have configuration-controlled application programming interfaces (APIs)	
DADS1780#A	4635	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall provide the capability to store as a single entity logically grouped sets of data.	
DADS1791#A	4636	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall have the capability to mount archival media via automated means.	A: Automate/Dismount with operations support
DADS1795#A	4637	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall update internal file directories with the unique Data set ID.	
DADS1800#A	4638	mission essential	SDPS	functional	demo	un-verified	demo	<u>un-verified</u>	Each DADS shall maintain data storage inventories defining the physical location of files.	

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DADS1805#A	4639	mission essential	SDPS	functional	demo	un-verified	demo test	<u>un-verified</u>	<p>The DADS shall provide an inventory system capable, at a minimum, of the following:</p> <ul style="list-style-type: none"> a. Accepting the number of new inventory entries, one per granule, for the number of granules per day as specified in Appendix C b. Uniquely identifying each data granule c. Tracking the physical location of each data granule. 	<p><u>A: TRMM-only Number of granules for Release A archives are derived from the capability to accommodate the Release A supported missions until the operational turnover of Release B (Through 3 quarter of 98). The number of granules at GSFC is sized to support the TSDIS data (along with required ancillary) and V0 migration data while LaRC archive is sized to support the CERES (TRMM) data (along with required ancillary) and V0 migration data. Total accumulated number of granules for Release A, derived from the August, 1995 Technical Baseline (Release A procurement baseline) and TSDIS ICD, is 815K @ GSFC and 70K @ LaRC. No Release A archive capacity is provided at EDC. The number of V0 migration granule was derived by assuming an average size of 50 MB per granule. For Release A, the peak number of granules archived per day @ GSFC is 1870 and @ LaRC is 172.</u></p>
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